



STIC Search Report

EIC 1700

STIC Database Tracking Number: 10/1052

TO: Eisa Elhilo
Location: CP3 9D34
Art Unit : 1751
August 15, 2003

Case Serial Number: 10/052431

From: Kathleen Fuller
Location: EIC 1700
CP3/4 3D62
Phone: 308-4290

Kathleen.Fuller@uspto.gov

Search Notes



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Kathleen Fuller, EIC 1700 Team Leader
308-4290, CP3/4-3D62

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* Example: 1713
- *Relevant prior art found, search results used as follows:*
- 102 rejection
 - 103 rejection
 - Cited as being of interest.
 - Helped examiner better understand the invention.
 - Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- Foreign Patent(s)
- Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ *Relevant prior art not found:*

- Results verified the lack of relevant prior art (helped determine patentability).
- Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC1700 CP3/4-3D62



ELHILO 10/052431

8/15/03

Page 1

=> FILE REG
FILE 'REGISTRY' ENTERED AT 09:28:39 ON 15 AUG 2003
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STRUCTURE FILE UPDATES: 13 AUG 2003 HIGHEST RN 566135-25-9
DICTIONARY FILE UPDATES: 13 AUG 2003 HIGHEST RN 566135-25-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

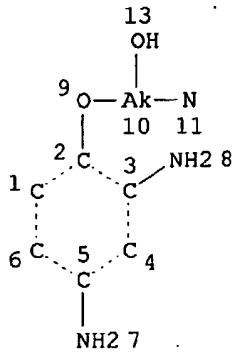
=> FILE HCAPLUS
FILE 'HCAPLUS' ENTERED AT 09:28:43 ON 15 AUG 2003
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FILE COVERS 1907 - 15 Aug 2003 VOL 139 ISS 7
FILE LAST UPDATED: 13 Aug 2003 (20030813/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> D QUE
L11 STR



38 structures from query

NODE ATTRIBUTES:

NSPEC IS RC AT 11
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L13 38 SEA FILE=REGISTRY SSS FUL L11
L16 5 SEA FILE=HCAPLUS ABB=ON L13

=> D L16 ALL HITSTR

5 CT References

L16 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:574892 HCAPLUS

DN 137:129544

TI Couplers for oxidative coloration of hair
IN Lim, Mu-Ill; Pan, Yuh-Guo; Anderson, James S.

PA Clairol Incorporated, USA

SO PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|--|----------|-----------------|----------|
| PI | WO 2002058659 | A1 | 20020801 | WO 2002-US1636 | 20020118 |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| | US 2002144700 | A1 | 20021010 | US 2002-52296 | 20020118 |

applicants

PRAI US 2001-263551P P 20010123

OS MARPAT 137:129544

AB Couplers for hair coloring compns. for oxidative dyeing of hair are [3-(2,4-diaminophenoxy)-2-hydroxypropyl]trialkylammonium halides or sulfates. For example, a hair dye was formulated contg. [3-(2,4-diaminophenoxy)-2-hydroxypropyl]trimethylammonium bromide, p-toluenediamine (as primary dye intermediate), and conventional hair prepns. ingredients.

ST hair dye coupler quaternary ammonium compd

IT Hair preparations

(dyes; hair dyes contg. couplers and oxidn. dye primary intermediates)

IT 90-15-3, Naphthalen-1-ol 95-55-6, 2-Aminophenol 95-70-5,
2-Methylbenzene-1,4-diamine 95-88-5, 4-Chlorobenzene-1,3-diol
106-50-3, Benzene-1,4-diamine, biological studies 108-46-3,
Benzene-1,3-diol, biological studies 123-30-8, 4-Aminophenol 150-75-4,
4-Methylaminophenol 591-27-5, 3-Aminophenol 608-25-3,
2-Methylbenzene-1,3-diol 1004-74-6, Pyrimidinetetramine 2380-86-1,
1H-Indol-6-ol 2835-95-2, 5-Amino-2-methylphenol 2835-98-5,
2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 7469-77-4,
2-Methyl-naphthalen-1-ol 7575-35-1 16867-03-1, 2-Aminopyridin-3-ol
17672-22-9, 2-Amino-6-methylphenol 26021-57-8, 3,4-Dihydro-2H-1,4-
benzoxazin-6-ol 41927-22-4, 4-Methyl-2-phenyl-2,4-dihydro-3H-pyrazol-3-
one 53222-92-7, 3-Amino-2-methylphenol 55302-96-0,
5-(2-Hydroxyethylamino)2-methylphenol 70643-19-5, 2-(2,4-
Diaminophenoxy)ethanol 83763-47-7 93841-24-8, 2-(2,5-
Diaminophenyl)ethanol 94082-77-6 129697-50-3 131311-66-5
155601-17-5 157469-54-0 220264-60-8 307493-94-3,
3-(2,4-Diaminophenoxy)propan-1-ol 329320-36-7

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyes contg. couplers and oxidn. dye primary intermediates)

IT 444155-06-0 444155-07-1 444155-09-3
444155-10-6 444155-12-8 444155-13-9
444155-14-0 444155-15-1 444155-16-2
444155-18-4 444155-20-8

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(novel couplers for oxidative hair dyes)

IT 19652-60-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. of hair dye couplers)

IT 51-28-5, 2,4-Dinitrophenol, reactions 535-80-8, m-Chlorobenzoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of hair dye couplers)

IT 10242-18-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. of hair dye couplers)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Bugaut; DE 3302534 A1 1983 HCPLUS

(2) Rose; DE 2948093 A1 1981 HCPLUS

IT 444155-06-0 444155-07-1 444155-09-3
444155-10-6 444155-12-8 444155-13-9
444155-14-0 444155-15-1 444155-16-2
444155-18-4 444155-20-8

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(novel couplers for oxidative hair dyes)

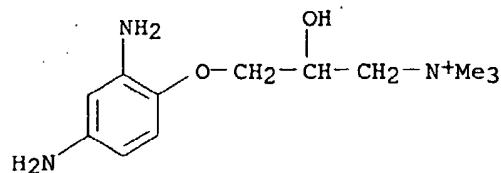
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ELHILLO 10/052431

8/15/03

Page 4

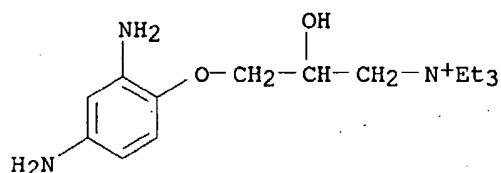
CN 1-Propanaminium, 3-(2,4-diaminophenoxy)-2-hydroxy-N,N,N-trimethyl-,
bromide (9CI) (CA INDEX NAME)



● Br⁻

RN 444155-07-1 HCPLUS

CN 1-Propanaminium, 3-(2,4-diaminophenoxy)-N,N,N-triethyl-2-hydroxy-,
chloride (9CI) (CA INDEX NAME)



● Cl⁻

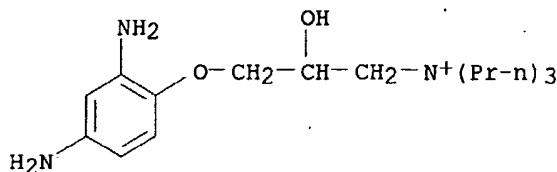
RN 444155-09-3 HCPLUS

CN 1-Propanaminium, 3-(2,4-diaminophenoxy)-2-hydroxy-N,N,N-tripropyl-, propyl
sulfate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 444155-08-2

CMF C18 H34 N3 O2



CM 2

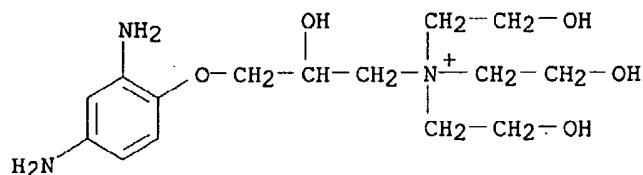
CRN 72640-73-4

CMF C3 H7 O4 S

n-Pr-O-SO₃⁻

RN 444155-10-6 HCPLUS

CN 1-Propanaminium, 3-(2,4-diaminophenoxy)-2-hydroxy-N,N-tris(2-hydroxyethyl)-, bromide (9CI) (CA INDEX NAME)



● Br⁻

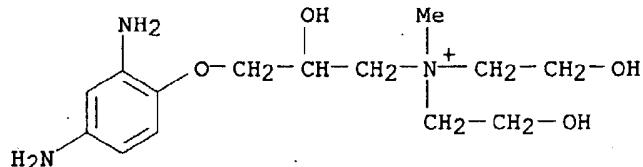
RN 444155-12-8 HCPLUS

CN 1-Propanaminium, 3-(2,4-diaminophenoxy)-2-hydroxy-N,N-bis(2-hydroxyethyl)-N-methyl-, methyl sulfate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 444155-11-7

CMF C14 H26 N3 O4



CM 2

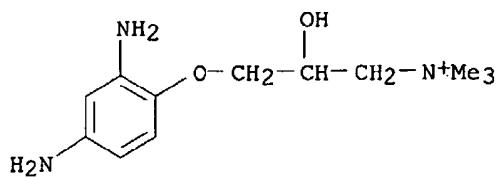
CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

RN 444155-13-9 HCPLUS

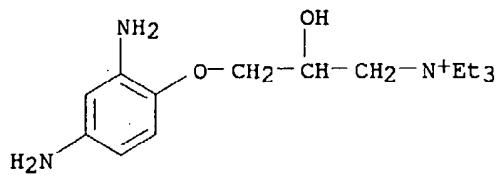
CN 1-Propanaminium, 3-(2,4-diaminophenoxy)-2-hydroxy-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

RN 444155-14-0 HCPLUS

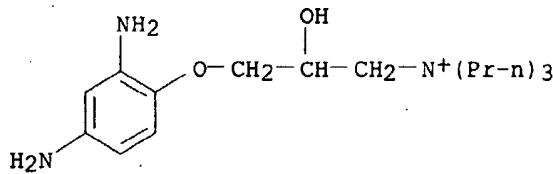
CN 1-Propanaminium, 3-(2,4-diaminophenoxy)-N,N,N-triethyl-2-hydroxy-, bromide
(9CI) (CA INDEX NAME)



● Br⁻

RN 444155-15-1 HCPLUS

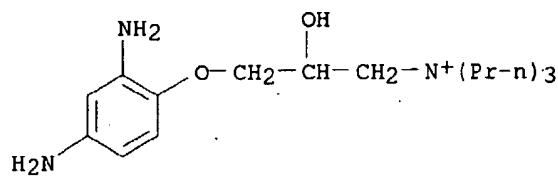
CN 1-Propanaminium, 3-(2,4-diaminophenoxy)-2-hydroxy-N,N,N-tripropyl-,
bromide (9CI) (CA INDEX NAME)



● Br⁻

RN 444155-16-2 HCPLUS

CN 1-Propanaminium, 3-(2,4-diaminophenoxy)-2-hydroxy-N,N,N-tripropyl-,
chloride (9CI) (CA INDEX NAME)

● Cl⁻

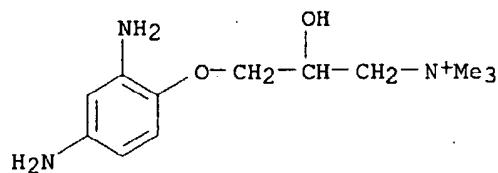
RN 444155-18-4 HCPLUS

CN 1-Propanaminium, 3-(2,4-diaminophenoxy)-2-hydroxy-N,N,N-trimethyl-, methyl sulfate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 444155-17-3

CMF C12 H22 N3 O2



CM 2

CRN 21228-90-0

CMF C H3 O4 S

 $\text{Me}-\text{O}-\text{SO}_3^-$

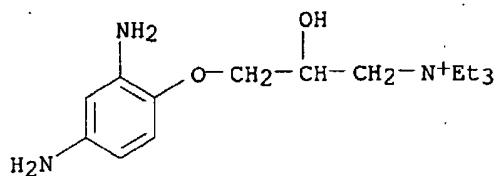
RN 444155-20-8 HCPLUS

CN 1-Propanaminium, 3-(2,4-diaminophenoxy)-N,N,N-triethyl-2-hydroxy-, ethyl sulfate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 444155-19-5

CMF C15 H28 N3 O2



CM 2

CRN 48028-76-8
CMF C2 H5 O4 SEt-O-SO₃⁻

=> D L16 ALL HITSTR 2-5

L16 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:574889 HCAPLUS

DN 137:129541

TI Novel couplers for use in oxidative hair dyeing

IN Lim, Mu-Ill; Pan, Yuh-Guo; Anderson, James S.

PA Clairol Incorporated, USA

SO PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DT Patent

LA English

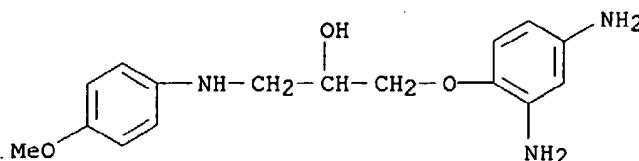
IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

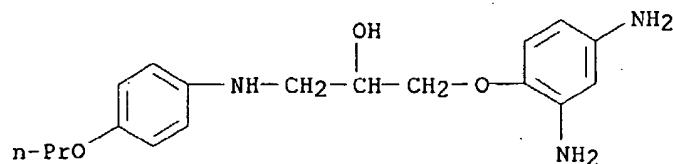
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|------|---|--|----------|-----------------|----------|--|
| PI | WO 2002058656 | A1 | 20020801 | WO 2002-US1616 | 20020118 | |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 2002138919 | A1 | 20021003 | US 2002-52431 | 20020118 | |
| PRAI | US 2001-263443P | P | 20010123 | | | |
| OS | MARPAT | 137:129541 | | | | |
| AB | Couplers for hair coloring compns. for oxidative dyeing of hair are 1-(2,4-diaminophenoxy)-3-aminopropan-2-ol and derivs. and analogs thereof. The hair dyeing compns. of this invention contain oxidn. dye primary intermediates, the novel couplers of this invention, and other couplers. For example, a hair dye was formulated contg. 1-(2,4-diaminophenoxy)-3-(4-methoxyphenylamino)propan-2-ol and p-toluenediamine with conventional ingredients. | | | | | |

ST oxidative hair dye coupler diaminophenoxypropanol deriv
 IT Hair preparations
 (dyes; hair dyes contg. couplers and oxidn. dye primary intermediates)
 IT 90-15-3, Naphthalen-1-ol 95-55-6, 2-Aminophenol 95-70-5,
 2-Methylbenzene-1,4-diamine 95-88-5, 4-Chlorobenzene-1,3-diol
 106-50-3, Benzene-1,4-diamine, biological studies 108-46-3,
 Benzene-1,3-diol, biological studies 123-30-8, 4-Aminophenol 150-75-4,
 4-Methylaminophenol 591-27-5, 3-Aminophenol 608-25-3,
 2-Methylbenzene-1,3-diol 1004-74-6, Pyrimidinetetramine 2380-86-1,
 1H-Indol-6-ol 2835-95-2, 5-Amino-2-methylphenol 2835-98-5,
 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 7469-77-4,
 2-Methyl-naphthalen-1-ol 16867-03-1, 2-Aminopyridin-3-ol 17672-22-9,
 2-Amino-6-methylphenol 26021-57-8, 3,4-Dihydro-2H-1,4-benzoxazin-6-ol
 41927-22-4, 4-Methyl-2-phenyl-2,4-dihydro-3H-pyrazol-3-one 53222-92-7,
 3-Amino-2-methylphenol 55302-96-0, 5-(2-Hydroxyethylamino)2-methylphenol
 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol 83763-47-7 93841-24-8,
 2-(2,5-Diaminophenyl)ethanol 94082-77-6 129697-50-3 131311-66-5
 155601-17-5 157469-54-0 220264-60-8 307493-94-3,
 3-(2,4-Diaminophenoxy)propan-1-ol 444160-86-5
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyes contg. couplers and oxidn. dye primary intermediates)
 IT 329320-36-7 444160-72-9 444160-73-0
 444160-75-2 444160-76-3 444160-77-4
 444160-78-5 444160-79-6 444160-80-9
 444160-81-0 444160-82-1 444160-83-2
 444160-84-3 444160-85-4
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (novel couplers for oxidative hair dyes)
 IT 10242-18-9P 19652-60-9P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. of hair dye couplers)
 IT 51-28-5, 2,4-Dinitrophenol, reactions 535-80-8, m-Chlorobenzoic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of hair dye couplers)
 RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Buguat; DE 3302534 A1 1983 HCPLUS
 (2) Rose; DE 2948093 A1 1981 HCPLUS
 IT 444160-72-9 444160-73-0 444160-75-2
 444160-76-3 444160-77-4 444160-78-5
 444160-79-6 444160-80-9 444160-81-0
 444160-82-1 444160-83-2 444160-84-3
 444160-85-4
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (novel couplers for oxidative hair dyes)
 RN 444160-72-9 HCPLUS
 CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-[(4-methoxyphenyl)amino]- (9CI) (CA
 INDEX NAME)



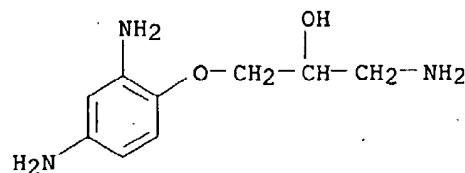
RN 444160-73-0 HCPLUS

CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-[(4-propoxyphenyl)amino]- (9CI) (CA INDEX NAME)



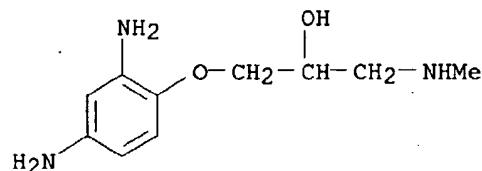
RN 444160-75-2 HCPLUS

CN 2-Propanol, 1-amino-3-(2,4-diaminophenoxy)- (9CI) (CA INDEX NAME)



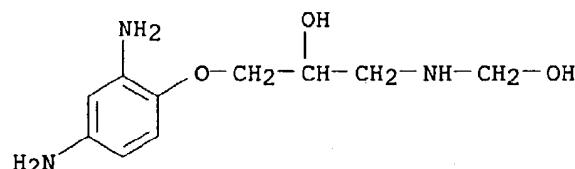
RN 444160-76-3 HCPLUS

CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-(methylamino)- (9CI) (CA INDEX NAME)



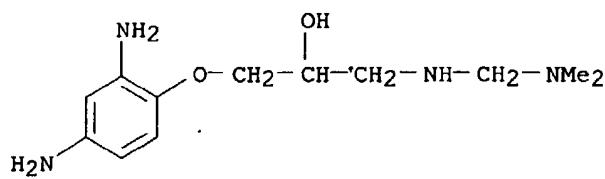
RN 444160-77-4 HCPLUS

CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-[(hydroxymethyl)amino]- (9CI) (CA INDEX NAME)

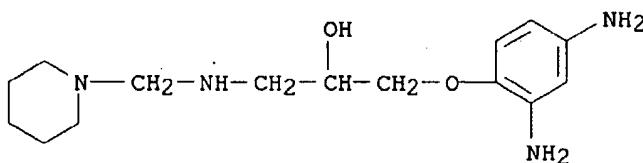


RN 444160-78-5 HCPLUS

CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-[[[(dimethylamino)methyl]amino]- (9CI) (CA INDEX NAME)

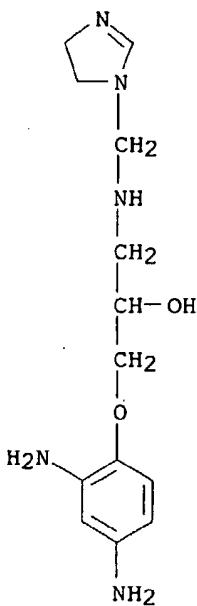


RN 444160-79-6 HCAPLUS

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(CA INDEX NAME)

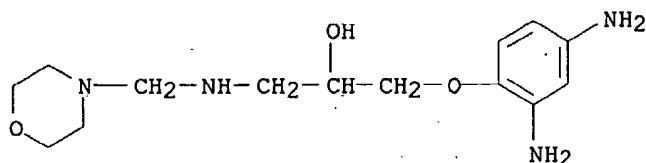
RN 444160-80-9 HCAPLUS

CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-[(4,5-dihydro-1H-imidazol-1-yl)methyl]amino]- (9CI) (CA INDEX NAME)



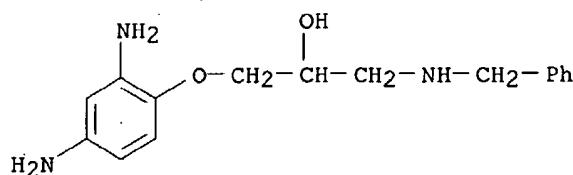
RN 444160-81-0 HCAPLUS

CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-[(4-morpholinylmethyl)amino]- (9CI)
(CA INDEX NAME)



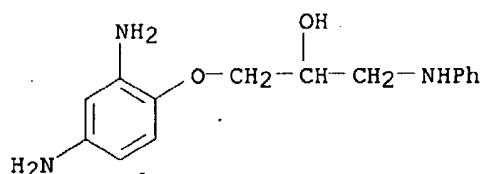
RN 444160-82-1 HCAPLUS

CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)



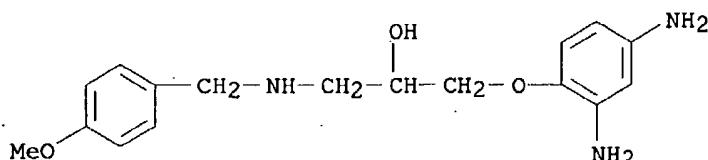
RN 444160-83-2 HCAPLUS

CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-(phenylamino)- (9CI) (CA INDEX NAME)



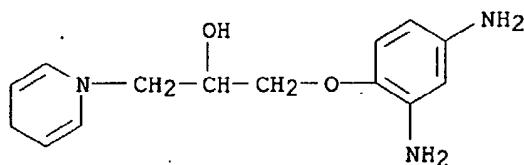
RN 444160-84-3 HCAPLUS

CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-[[[(4-methoxyphenyl)methyl]amino]- (9CI) (CA INDEX NAME)



RN 444160-85-4 HCAPLUS

CN 1(4H)-Pyridineethanol, .alpha.-[(2,4-diaminophenoxy)methyl]- (9CI) (CA INDEX NAME)

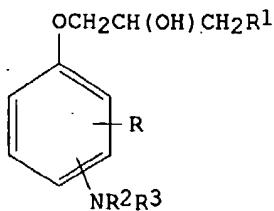


L16 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1983:577512 HCAPLUS
 DN 99:177512
 TI Amino compounds useful as hair dyes
 IN Bugaut, Andree; Genet, Alain
 PA Oreal S. A. , Fr.
 SO Ger. Offen., 93 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC C07C093-14; A61K007-13
 CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
 Section cross-reference(s): 62

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | DE 3302534 | A1 | 19830804 | DE 1983-3302534 | 19830126 |
| | CH 661501 | A | 19870731 | CH 1983-273 | 19830118 |
| | FR 2520358 | A1 | 19830729 | FR 1983-847 | 19830120 |
| | FR 2520358 | B1 | 19850524 | | |
| | CA 1191849 | A1 | 19850813 | CA 1983-420080 | 19830124 |
| | AT 8300220 | A | 19880515 | AT 1983-220 | 19830124 |
| | AT 387212 | B | 19881227 | | |
| | BE 895697 | A1 | 19830725 | BE 1983-209961 | 19830125 |
| | AU 8310762 | A1 | 19830804 | AU 1983-10762 | 19830125 |
| | AU 556627 | B2 | 19861113 | | |
| | GB 2113685 | A1 | 19830810 | GB 1983-1981 | 19830125 |
| | GB 2113685 | B2 | 19851211 | | |
| | NL 8300267 | A | 19830816 | NL 1983-267 | 19830125 |
| | ES 519237 | A1 | 19840716 | ES 1983-519237 | 19830125 |
| | JP 58164553 | A2 | 19830929 | JP 1983-10007 | 19830126 |
| | GB 2129022 | A1 | 19840510 | GB 1983-31092 | 19831122 |
| | GB 2129022 | B2 | 19851211 | | |
| → | US 4888025 | A | 19891219 | US 1985-742240 | 19850607 |
| | AU 8666832 | A1 | 19870416 | AU 1986-66832 | 19861222 |
| PRAI | LU 1982-83900 | | 19820126 | | |
| | LU 1982-84391 | | 19820927 | | |
| | US 1983-459964 | | 19830121 | | |
| | GB 1983-1981 | | 19830125 | | |

GI



- AB 3-Amino-1-(substituted phenoxy)-2-propanols (I; R = NO₂, NH₂; R₁ = NH₂, C₁-4 alkyl- or hydroxyalkyl-substituted amino, morpholino, piperidino, quaternary ammonium; R₂, R₃ = H, C₁-4 alkyl or hydroxyalkyl) are prepd. and used in hair dyeing formulations. Depending on the nature of R and its position with respect to NR₂R₃, I can be used as direct dyes (R = NO₂) or (R = NH₂) as oxidn. bases or couplers. Thus, reaction of 4,3-AcNH(O₂N)C₆H₃OH [7403-75-0] with epichlorohydrin to form the glycidyl ether (II) [24544-37-4], treatment of II with Et₂NH to give 4,3-AcNH(O₂N)C₆H₃OCH₂CH(OH)CH₂NET₂ (III) [87563-65-3], and deacetylation of III gave 4,3-H₂N(O₂N)C₆H₃OCH₂CH(OH)CH₂NET₂.HCl [87563-64-2], a direct dye. Hydrogenation of 2,4-H₂N(O₂N)C₆H₃OCH₂CH(OH)CH₂NMe₂ [87563-66-4], followed by N-acetylation, quaternization with MeI, and deacetylation gave 2,4-(H₂N)C₆H₃OCH₂CH(OH)CH₂N⁺Me₃Cl⁻.2HCl [87570-61-4], a coupler for oxidative dyeing compns. Nine other I were prepd. by these and similar methods, and dyeing formulations contg. these dyes are described in detail.
- ST aminophenoxypropanol hair dye; phenylenediamine deriv hair dye; nitroaminophenol ether hair dye; coupler oxidative hair dye; oxidn base hair dye
- IT Alcohols, uses and miscellaneous
RL: USES (Uses)
(amino, for direct and oxidative hair dyes)
- IT Hair preparations
(dyes, direct, aminophenoxypropanol derivs. as)
- IT Hair preparations
(dyes, oxidative, aminophenoxypropanol derivs. as bases and couplers for)
- IT 80062-31-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(epoxidn. of, by cyclodehydration)
- IT 97-60-9 7403-75-0 25351-89-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(etherification of, by epichlorohydrin)
- IT 87563-58-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrogenation of).
- IT 87563-48-2P 87563-50-6P 87570-61-4P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manuf. and use of, as coupler for oxidative hair dyeing compns.)
- IT 87563-42-6P 87563-43-7P 87563-44-8P 87563-45-9P 87563-46-0P
87563-49-3P 87563-64-2P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manuf. and use of, as direct dye for hair)
- IT 87563-47-1P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manuf. and use of, as oxidn. base for hair dyeing compns.)

IT 87563-51-7P 87563-52-8P 87563-56-2P 87563-61-9P 87563-63-1P
 87563-65-3P 87570-60-3P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and deacetylation of)

IT 87563-66-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and hydrogenation of)

IT 87563-53-9P 87563-55-1P 87563-60-8P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and hydrolysis of)

IT 87563-62-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and quaternization of)

IT 24544-37-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and reaction of, with amines)

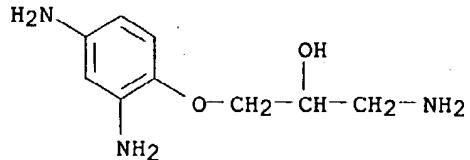
IT 78917-60-9P 87563-54-0P 87563-59-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and reaction of, with succinimide)

IT 87563-57-3P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)

IT 87563-48-2P 87563-50-6P 87570-61-4P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (manuf. and use of, as coupler for oxidative hair dyeing compns.)

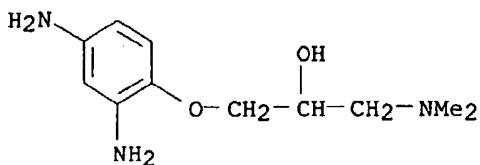
RN 87563-48-2 HCPLUS

CN 2-Propanol, 1-amino-3-(2,4-diaminophenoxy)-, trihydrochloride (9CI) (CA INDEX NAME)



● 3 HCl

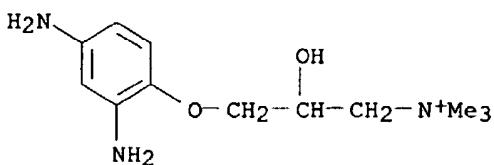
RN 87563-50-6 HCPLUS
 CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-(dimethylamino)-, trihydrochloride (9CI) (CA INDEX NAME)



● 3 HCl

RN 87570-61-4 HCPLUS

CN 1-Propanaminium, 3-(2,4-diaminophenoxy)-2-hydroxy-N,N,N-trimethyl-, chloride, dihydrochloride (9CI) (CA INDEX NAME)



● Cl⁻

● 2 HCl

L16 ANSWER 4 OF 5 HCPLUS COPYRIGHT 2003 ACS on STN

AN 1981:534387 HCPLUS

DN 95:134387

TI Coupler components for oxidation hair dyes and use of hair dyeing agents containing them

IN Rose, David; Lieske, Edgar

PA Henkel K.-G.a.A., Fed. Rep. Ger.

SO Ger. Offen., 22 pp.

CODEN: GWXXBX

DT Patent

LA German

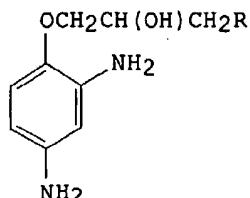
IC C07C093-14; A61K007-13

CC 40-10 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
Section cross-reference(s): 62

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|----------|
| PI | DE 2948093 | A1 | 19810611 | DE 1979-2948093 | 19791129 |
| FI | 8003435 | A | 19810530 | FI 1980-3435 | 19801103 |
| DK | 8004656 | A | 19810530 | DK 1980-4656 | 19801103 |
| NO | 8003288 | A | 19810601 | NO 1980-3288 | 19801103 |
| EP | 29964 | A1 | 19810610 | EP 1980-107210 | 19801120 |

R: AT, BE, CH, DE, FR, GB, IT, NL, SE
 JP 56090043 A2 19810721 JP 1980-166824 19801128
 PRAI DE 1979-2948093 19791129
 GI



- AB Coupling components (I; R = NHET, NHPh, NHCH₂Ph, NEtPh, OH, OEt, morpholino, piperidino) are prep'd. and are used in oxidative hair dyeing compns. giving reddish brown to dark violet shades. Thus, 2-acetamido-4-nitrophenol [97-60-9] was condensed with epichlorohydrin [106-89-8], the resulting 1-(2-acetamido-4-nitrophenoxy)-2,3-epoxypropane [78917-60-9] treated with ethylamine [75-04-7], and the product deacetylated and reduced to give I (R = NHET.3HCl) [78917-84-7]. Seven addnl. I were similarly prep'd.
- ST aminophenoxyhydroxyalkylamine oxidative hair dye coupler; phenylenediamine oxidative hair dye coupler
- IT Hair preparations
 (dyes, oxidative, couplers for, (hydroxypropoxy)phenylenediamine derivs. as)
- IT 78917-71-2P 78917-74-5P 78917-80-3P 78917-83-6P
 78917-84-7P
 RL: PREP (Preparation)
 (oxidative hair dye coupler, manuf. of)
- IT 78917-77-8P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (oxidative hair dye coupler, prepn. of)
- IT 78917-65-4P 78917-68-7P
 RL: PREP (Preparation)
 (oxidative hair dye couplers, manuf. of)
- IT 78917-61-0P 78917-63-2P 78917-66-5P 78917-69-8P 78917-72-3P
 78917-75-6P 78917-78-9P 78917-81-4P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and deacetylation of)
- IT 78917-60-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and reaction with ethylamine)
- IT 78917-62-1P 78917-64-3P 78917-67-6P 78917-70-1P 78917-73-4P
 78917-76-7P 78917-79-0P 78917-82-5P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and redn. of)
- IT 100-46-9, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with (acetamido nitrophenoxy)epoxy propane)
- IT 64-17-5, reactions 75-04-7, reactions 103-69-5 110-89-4, reactions 110-91-8, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with (acetamidonitrophenoxy)epoxypropane)

IT 106-89-8, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with acetamidonitrophenol)

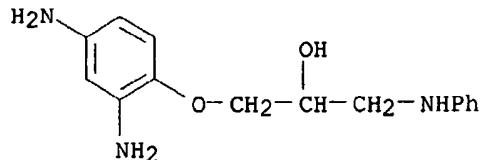
IT 62-53-3, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with acetamidonitrophenoxyepoxypropane)

IT 97-60-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with epichlorohydrin)

IT 78917-71-2P 78917-74-5P 78917-84-7P
 RL: PREP (Preparation)
 (oxidative hair dye coupler, manuf. of)

RN 78917-71-2 HCPLUS

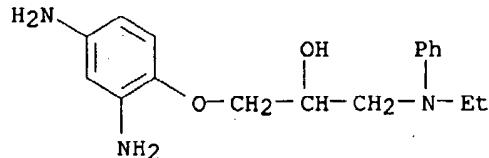
CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-(phenylamino)-, trihydrochloride
 (9CI) (CA INDEX NAME)



●3 HCl

RN 78917-74-5 HCPLUS

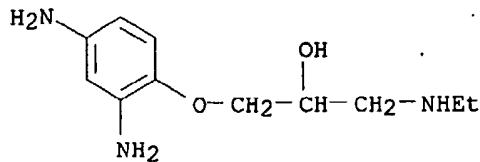
CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-(ethylphenylamino)-, trihydrochloride
 (9CI) (CA INDEX NAME)



●3 HCl

RN 78917-84-7 HCPLUS

CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-(ethylamino)-, trihydrochloride (9CI)
 (CA INDEX NAME)



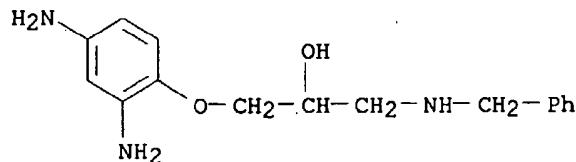
● 3 HCl

IT 78917-77-8P

RL: IMF (Industrial manufacture); PREP (Preparation)
(oxidative hair dye coupler, prepn. of)

RN 78917-77-8 HCPLUS

CN 2-Propanol, 1-(2,4-diaminophenoxy)-3-[(phenylmethyl)amino]-, trihydrochloride (9CI) (CA INDEX NAME)



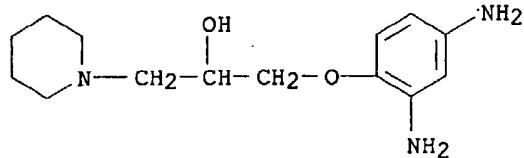
● 3 HCl

IT 78917-65-4P 78917-68-7P

RL: PREP (Preparation)
(oxidative hair dye couplers, manuf. of)

RN 78917-65-4 HCPLUS

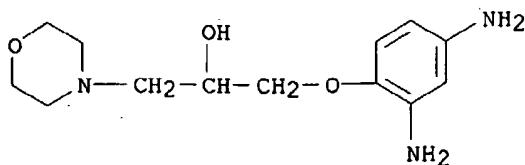
CN 1-Piperidineethanol, .alpha.-[(2,4-diaminophenoxy)methyl]-, trihydrochloride (9CI) (CA INDEX NAME)



● 3 HCl

RN 78917-68-7 HCPLUS

CN 4-Morpholineethanol, .alpha.-[(2,4-diaminophenoxy)methyl]-, trihydrochloride (9CI) (CA INDEX NAME)



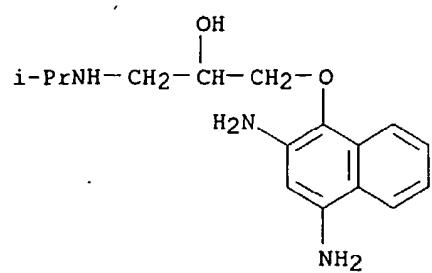
● 3 HCl

L16 ANSWER 5 OF 5 HCPLUS COPYRIGHT 2003 ACS on STN
 AN 1977:596786 HCPLUS
 DN 87:196786
 TI .beta.-Adrenergic receptors
 AU Atlas, Daphne
 CS Dep. Biol. Chem., Hebrew Univ., Jerusalem, Israel
 SO Methods in Enzymology (1977), 46(Affinity Labeling), 591-601
 CODEN: MENZAU; ISSN: 0076-6879
 DT Journal
 LA English
 CC 9-13 (Biochemical Methods)
 Section cross-reference(s): 2
 AB For use as affinity labels of .beta.-receptors, several derivs., baed on the structures of norepinephrine, practolol, and propranolol were synthesized, including: 1,2-epoxy-3-norepinephrine propane, bromopractolol, 2,4-bromoacetamido propranolol, 1-[(1-oxy-2-hydroxy-3-tert-butylamino)propane]-3-bromoacetamidoisoquinoline, 1-(oxy-2-hydroxy-3-isopropylamine)propane-3-bromoacetamidoisoquinoline, N-(2-hydroxy-3-naphthyloxypropyl)ethylenediamine, N-(2-hydroxy-3-naphthyloxypropyl)-N'-bromoacetylene diamine, and bromomethyl-(2-hydroxy-3-naphthoxypropylaminomethyl)ketone. The compds. were tested as .beta.-blockers by their capacity to inhibit turkey erythrocyte .beta.-receptor-dependent adenylate cyclase activity, and their relative activities are described.
 ST beta adrenergic receptor affinity labeling
 IT Receptors
 (.beta.-adrenergic, affinity labels for, prepn. of)
 IT 27684-79-3P 59479-83-3P 59479-84-4P 59479-85-5P 59479-86-6P
 64888-07-9P 64888-08-0P 64888-09-1P 64888-10-4P
 RL: PREP (Preparation)
 (prep. of, .beta.-adrenergic receptor affinity labeling in relation to)
 IT 64888-08-0P
 RL: PREP (Preparation)
 (prep. of, .beta.-adrenergic receptor affinity labeling in relation to)
 RN 64888-08-0 HCPLUS
 CN 2-Propanol, 1-[(2,4-diamino-1-naphthalenyl)oxy]-3-[(1-methylethyl)amino]-
 (9CI) (CA INDEX NAME)

ELHILO 10/052431

8/15/03

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MD
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